AMENDMENT TO THE CLAIMS

The following claim listing replaces all prior listings and versions of the claims:

LISTING OF CLAIMS

1. (Currently Amended) A stream converting method, characterized in that it comprises the steps of:

separating a first transport stream (TS)~~, processed by a digital compression process,~~ into a first TS packet string formed from TS packets that have a prescribed packet identifier ~~of at least one of video data and audio data,~~ and a second TS packet string formed from TS packets that do not have the prescribed packet identifier;

extracting reference time information from the first transport stream so as to produce reference time from the reference time information;

determining, with reference to the reference time, time of receipt of a TS packet including a head byte of a packetized elementary stream (PES) packet in the first TS packet string as first time of receipt;

determining, with reference to the reference time, time of receipt of a head byte of each TS packet forming the second TS packet string as second time of receipt;

converting a bit rate of the first TS packet string so as to produce a third TS packet string; and

multiplexing the produced third TS packet string and the second TS packet string so as to produce a second transport stream,

wherein in the packet multiplexing step, time of receipt of a TS packet including a head byte of a PES packet in the third TS packet string is made to match the first time of receipt, and time of receipt of a TS packet of the second TS packet string is made to match the second time of receipt.

2. (Canceled)

3. (Currently Amended) The stream converting method according to claim 1, characterized in that it comprises the steps of:

~~extracting reference time information from the first transport stream so as to produce reference time from the reference time information;~~

~~determining, with reference to the reference time, time of receipt of a TS packet including a head byte of a PES packet in the first TS packet string as first time of receipt;~~

~~determining, with reference to the reference time, time of receipt of a head byte of each TS packet forming the second TS packet string as second time of receipt; and~~

delaying the reference time by a prescribed time so as to produce delayed reference time,

storing the second TS packet string, the second time of receipt, and the delayed reference time into buffer, and

outputting a TS packet corresponding to the second time of receipt from the buffer when the delayed reference time matches the second time of receipt.

~~and in that the packet multiplexing step includes the steps of~~

~~selecting from the third TS packet string a TS packet corresponding to the first time of receipt for output as the second transport stream, when the delayed reference time matches the first time of receipt, and~~

~~selecting from the second TS packet string a TS packet corresponding to the second time of receipt for output as the second transport stream, when the delayed reference time matches the second time of receipt.~~

3

4. (Currently Amended) A stream recording method, characterized in that it comprises the steps of:

separating a first transport stream, processed by a digital compression process, into a first TS packet string formed from TS packets that have a prescribed packet identifier ~~of at least one of video data and audio data,~~ and a second TS packet string formed from TS packets that do not have the prescribed packet identifier;

extracting reference time information from the first transport stream so as to produce reference time from the reference time information;

determining, with reference to the reference time, time of receipt of a TS packet including a head byte of a PES packet in the first TS packet string as first time of receipt;

determining, with reference to the reference time, time of receipt of a head byte of each TS packet forming the second TS packet string as second time of receipt;

converting a bit rate of the first TS packet string so as to produce a third TS packet string;

multiplexing the produced third TS packet string and the second TS packet string so as to produce a second transport stream;

extracting reference time information from the first transport stream, and delaying reference time represented by the reference time information by a prescribed time so as to produce delayed reference time; and

determining, with reference to the delayed reference time, time of receipt of each TS packet forming the second transport stream, and recording the second transport stream together with the determined time of receipt onto a recording medium,

wherein in the packet multiplexing step, time of receipt of a TS packet including a head byte

4

of a PES packet in the third TS packet string is made to match the first time of receipt, and time of receipt of a TS packet of the second TS packet string is made to match the second time of receipt.

5-7. (Canceled)

8. (Currently Amended) A stream converting apparatus, characterized in that it comprises:

a packet separating section for separating a first transport stream, ~~processed by a digital compression process,~~ into a first TS packet string formed from TS packets that have a prescribed packet identifier ~~of at least one of video data and audio data,~~ and a second TS packet string formed from TS packets that do not have the prescribed packet identifier;

means for extracting reference time information from the first transport stream so as to produce reference time from the reference time information;

means for determining, with reference to the reference time, time of receipt of a TS packet including a head byte of a PES packet in the first TS packet string as first time of receipt;

means for determining, with reference to the reference time, time of receipt of a head byte of each TS packet forming the second TS packet string as second time of receipt;

a bit-rate converting section for converting a bit rate of the first TS packet string so as to produce a third TS packet string; and

a packet multiplexing section for multiplexing the third TS packet string output from the bit-rate converting section and the second TS packet string output from the packet separating section so as to produce a second transport stream,

wherein the packet multiplexing section makes time of receipt of a TS packet including a head byte of a PES packet in the third TS packet string match the first time of receipt and makes

time of receipt of a TS packet of the second TS packet string match the second time of receipt in multiplexing.

9. (Currently Amended) A stream recording apparatus, characterized in that it comprises:

a packet separating section for separating a first transport stream, ~~processed by a digital compression process,~~ into a first TS packet string formed from TS packets that have a prescribed packet identifier ~~of at least one of video data and audio data,~~ and a second TS packet string formed from TS packets that do not have the prescribed packet identifier;

means for extracting reference time information from the first transport stream so as to produce reference time from the reference time information;

means for determining, with reference to the reference time, time of receipt of a TS packet including a head byte of a PES packet in the first TS packet string as first time of receipt;

means for determining, with reference to the reference time, time of receipt of a head byte of each TS packet forming the second TS packet string as second time of receipt;

a bit-rate converting section for converting a bit rate of the first TS packet string so as to produce a third TS packet string;

a packet multiplexing section for multiplexing the third TS packet string output from the bit-rate converting section and the second TS packet string output from the packet separating section so as to produce a second transport stream;

a means for extracting reference time information from the first transport stream, and delaying reference time represented by the reference time information by a prescribed time so as to produce delayed reference time; and

a recording control section for determining, with reference to the delayed reference time,

time of receipt of each TS packet forming the second transport stream, and recording the second transport stream together with the determined time of receipt onto a recording medium,

wherein the packet multiplexing section makes time of receipt of a TS packet including a head byte of a PES packet in the third TS packet string match the first time of receipt and makes time of receipt of a TS packet of the second TS packet string match the second time of receipt in multiplexing.

10. (Canceled)

11. (New) The stream converting method according to claim 1, wherein in the packet multiplexing step, the second TS packet string is multiplexed preferentially over the third TS packet string.

12. (New) The stream converting method according to claim 1, further comprising a step of determining the prescribed packet identifier,

wherein in the identifier determining step, determining is performed based on a bit rate of the first transport stream.